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FISCAL IMPACT REPORT

ORIGINAL DATE 2/10/06
 LAST UPDATED 2/13/06 HB 874/HBICS

SPONSOR HBIC

SHORT TITLE Public Peace, Health, Safety & Welfare SB _____

ANALYST Francis

REVENUE (dollars in thousands)

Estimated Revenue			Recurring or Non-Rec	Fund Affected
FY06	FY07	FY08		
	Indeterminate			
	See Narrative for Detail			

(Parenthesis () Indicate Expenditure Decreases)

SOURCES OF INFORMATION

LFC Files

SUMMARY

Synopsis of Bill

House Bill 874 substituted by the House Business and Industry Committee would allow the State Board of Finance to enter into contracts with qualified entities to use up to 50 percent of severance tax revenues going to the general fund or the severance tax permanent fund to purchase derivatives relating to energy prices. The effective date is upon signing into law due to an emergency clause.

Investopedia.com defines derivative as a security whose price is dependent upon or derived from one or more underlying assets. The derivative itself is merely a contract between two or more parties. Its value is determined by fluctuations in the underlying asset. The most common underlying assets include stocks, bonds, commodities, currencies, interest rates and market indexes. Most derivatives are characterized by high leverage. Futures contracts, forward contracts, options and swaps are the most common types of derivatives and are examples of hedging contracts referred to in HB 874.

The maximum length of any hedging contract will be ten years.

FISCAL IMPLICATIONS

Energy price hedging is used to reduce the risk of volatility in the energy markets. In recent

months, natural gas prices have moved from \$6 per thousand cubic feet (MCF) to \$14/MCF. Likewise, oil prices have moved up to as high as \$68/barrel and have been fluctuating in a four to five dollar range. These uncertainties have driven the market in energy hedging. Once the purview of utilities that rely on long term contracts and are risk intolerant, other entities who rely on oil and gas as revenue streams have entered the market.

The fiscal implications are uncertain because of the volatility of oil and gas. However, assuming that the state board of finance (BOF) negotiates a contract above the consensus revenue group estimate the impact would be positive to the extent that the consensus revenue group forecast is accurate.

The application of energy hedges to the severance tax permanent fund revenues will also affect bonding capacity. To the extent that there is an increase in revenue due to the hedge, there will be additional bonding capacity both for the senior STB bonds and the supplemental STB bonds. If the hedge results in a loss or an unrealized gain, the bonding capacity will be less than it would have been without the hedge.

SIGNIFICANT ISSUES

There are three main types of hedges: a floor, a swap, and a collar. These can be structured in many ways if they are purchased over-the-counter (OTC). Typically, the hedge uses the NYMEX future prices as the baseline but BOF has indicated that the hedge could be narrowly defined as the wellhead price of the San Juan or Permian basins so that the hedge price more accurately reflects the New Mexico gas prices.

The way the hedge works is that BOF enters into an agreement with a counterparty to establish certain prices of natural gas or oil. The contract is usually at a set price per unit of commodity. The unit for natural gas would be one thousand cubic feet (MCF) and the unit for oil would be on barrel. This is an important distinction. The state is entering into an agreement to buy or sell a certain amount of oil or natural gas at a given price.

For the purposes of illustration, this fiscal impact report focuses on natural gas but the same mechanics apply to oil.

If the contract is a “floor,” then the contract sets a minimum price per MCF. The state pays a premium depending on the duration of the contract and the level of the floor. If the price of natural gas stays above the floor price, the state has lost only the premium that it paid for the contract. If the price of natural gas goes below the floor price, the counterparty pays the state the difference. In other words, if it costs \$0.20 per MCF to establish a floor of \$6.00 per MCF, the state is guaranteed a price of \$5.80 per MCF (the guaranteed floor less the premium).

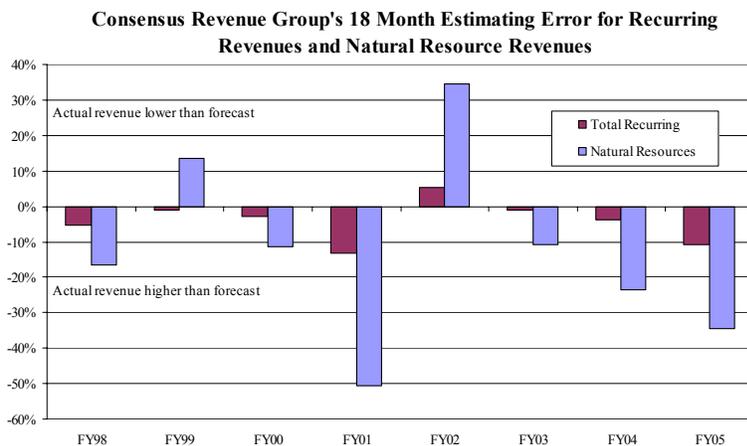
If the contract is a “swap,” the state is locking in a price per MCF. In this case, if the swap price is \$6.00, the state will benefit when the price goes below \$6.00. If the price is above \$6.00 then the state pays the counterparty the amount above the swap. So for a contract, the state will break even at \$6/MCF, will have to pay the counterparty if the price falls below \$6.00 and will receive payment if the price is above \$6.00.

A “collar” is somewhat different. A collar sets both a floor and a ceiling by issuing “puts” and “calls.” A “put” is an option to sell a commodity at a certain price before a certain date and a

“call” is an option to buy a commodity at a certain price before a certain date. By matching put orders with call orders, the BOF creates a band of price certainty.

Picking the price becomes of paramount importance to minimize the risk. Currently, the consensus revenue group, made up of representatives of the Department of Finance and Administration, the Legislative Finance Committee, Taxation and Revenue Department and Department of Transportation, forecasts natural gas oil prices out five fiscal years. These estimates are used in the appropriations each year and are updated periodically throughout the year. As the chart below shows, the forecast has had significant error due to the volatility of oil and gas prices. For example, the February 2005 estimate of natural gas price for FY06 was \$4.80/MCF. The most recent estimate for FY06 is \$7.50, a difference of \$2.70. If the state had purchased a swap for \$4.80/MCF based on the estimate, the state could have lost over \$175 million in natural gas revenues (up to half of severance tax revenues are authorized for hedge contracts).

Consensus revenue estimate accuracy



For a long time, these types of hedges were primarily used by utilities, railroads and airlines (Southwest Airlines has been in the news recently with their successful fuel hedging). These are entities who depend on cost controls for profitability and so they favor locking in a price for factor inputs like fuel. They are actually purchasing the energy whether its barrels of oil or cubic feet of gas and using it. The state however depends on the revenue derived from the sale of oil and natural gas rather than from the use of them. This is an important distinction to make. Regardless of hedging, the state will receive tax revenues on severance activities. The hedge is outside of the tax revenues. The hedge is equivalent to investing those revenues because the state will never be on the hook to actually deliver oil or gas to a purchaser of one of the hedge contracts. So, hedging is an investment strategy to insure against volatility in the energy markets. The simple model below demonstrates where the hedge fits into the current model.

Current Model:

Oil and Gas is Severed

→ Taxable event

→ Revenues to State General Fund based on Value (volume x price)

Hedge Model:

Oil and Gas is Severed

→ Taxable event

→ Revenues to State Board of Finance based on Value (volume x price)

→ 50 percent or more → General or Severance Tax Permanent Fund

→ Up to 50 percent to Hedge Investment

→ Proceeds to/from General or Severance Tax Permanent Fund

OTHER SUBSTANTIVE ISSUES

TRD:

The proposal represents a worthwhile attempt to take advantage of financial instruments that could be utilized to stabilize the state's revenues. To this end, it is inevitable that some discretion must be delegated to the Board to evaluate and choose among alternative financial instruments. However, given the importance of the trade-off between potential return and the risk assumed on these investments, it is important that the proposal provide guidance for the Board as it makes decisions involving these transactions. As it stands, the proposal merely requires the Board to determine that the transactions are "in the best interests of the state." Thus, the proposal is completely silent on what the Legislature views as the appropriate amount of risk to be assumed in order to achieve a specified return. Such guidance could take into account, for example, the differences in how General Fund revenues are budgeted compared with Severance Tax Bonding Fund revenues. The General Fund budget encompasses the current year and one additional year. Thus, hedging transactions designed to guarantee revenue through the budget year are more important -- and also less risky -- than those for longer time periods. Severance Tax Bonding Fund revenue is used for capital outlay projects rather than operating, and a portion of the revenue is used for bond debt service. Thus, the risk/return criteria for this fund should be quite different than those for the General Fund.

Given the novelty of the proposed new program, it is probably advisable to initiate the program on a "pilot" basis at first, to test the potential benefits prior to committing large sums. The authorization allowing the Board to commit as much as 50 percent of these revenues is far beyond a pilot program in scale.

The Board should be required to provide detailed reports to the Legislature on a regular basis concerning the nature of the decisions it has made under the program, the financial trade-offs implied in any contracts into which it has entered, the net effects of the program on state revenues, etc. These reports could be made annually but also on a more frequent basis to the Legislative Finance Committee.

It will be critical to have appropriate staff training in these investment strategies.

ALTERNATIVES

As TRD indicates, the current bill opens up a significant amount of the state's revenue to an untested investment strategy (untested by New Mexican agencies) and as an alternative a lower threshold may be established such as 10 percent.

As written, only the State Board of Finance makes the decisions. It may be useful to include the

State Investment Council or the State Treasurer in the decision making.

WHAT WILL BE THE CONSEQUENCES OF NOT ENACTING THIS BILL

What is a down-side scenario? What is the potential for losses?

What are the fees for preparing structured over the counter contracts? Are these included in the premium or separate?

Does the State Board of Finance have the staff resources to effectively analyze and evaluate an energy hedge contract?

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